pelvic lavage, or in some cases nephrostomy drainage, carried out.

7. No apparent permanent renal damage has been observed in patients relieved of sulfadiazine anuria.

8. A case of mechanical sulfadiazine anuria is reported, occurring seven days after administration of 15 gm. for acute bronchitis in a patient presenting bilateral ureteral stricture, relieved by ureteral catheterization and pelvic lavage.

450 Sutter Street.

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UNDULANT FEVER*

REPORT OF AN UNUSUAL CASE

H. O. Swartout, M. D.
AND
Hugh Dierker, M. D.
Los Angeles

THE fact that undulant fever may present itself in the apparent guise of many other diseases has been repeatedly stated, but may not be realized by all of us as clearly as it should be. A recent Los Angeles County case may serve to emphasize this thought.

REPORT OF CASE

The patient, a male of 21 years, was hospitalized on January 20, 1943. His chief complaints were: Fever, chills, anorexia, cough at night, stiff neck, headache, ringing in the ears, dizziness, sweating, and weakness—several of these symptoms being of about one month's duration. Five days before hospitalization he became so weak that he had to stay in bed.

Twice during the first day of hospitalization his fever reached 104° F. It was noticed that he had hot sweats. Both optic discs showed evidence of intracranial pressure. His hearing was markedly impaired on both sides. His liver and spleen were both palpable. There were many slightly enlarged cervical nodes and firm, nontender inguinal nodes. There was no abdominal tenderness.

Tentative diagnoses: Expanding lesion around the left cerebellopontine angle; tuberculosis; Hodgkin's disease; leukemia.

On the second day of hospitalization, an agglutination test for typhoid bacilli was reported strongly positive, titer 1:2560; and a tentative diagnosis of typhoid fever was made. Blood, stool and urine cultures for typhoid organisms, however, proved negative, while a Brucella agglutination test was reported positive, titer 1:400. In view of all these facts, and especially because the patient did not seem nearly as "sick" as his fever and other symptoms might warrant, the health department epidemiologist expressed his suspicion that what ailed the patient was undulant fever.

Not long afterward, two blood cultures were reported positive for Brucella suis, confirming the epidemiologist's suspicion. As the disease progressed, the Brucella agglutination titer rose to 1:1600, while the typhoid agglutination titer finally fell to 1:640.

This patient did very well on enough sulfanilamide to keep the drug level in his blood between 10.0 and 17.6 milligrams per cent for about three weeks, after which the dose was reduced to half a gram every 6 hours.

COMMENT

The number and variety of tentative diagnoses in this case were remarkable. The most puzzling factor was the early positive agglutination test for typhoid in very high titer. The patient denied ever having had typhoid fever or ever having been vaccinated against that disease. It is, of course, possible that he had had an unrecognized case of typhoid fever fairly recently.

808 North Spring Street.

* From the Health Department of the County of Los Angeles. Contributed by the Acting County Health Officer and the Epidemiologist.

ORBELI AND WAR

Charles L. Rubenstein, M. D.
San Francisco

SAN FRANCISCO'S leaders of medicine and science well remember the famous Russian scientist, Dr. L. A. Orbeli, one of the most distinguished physiologists of our time.

It was he who inaugurated, in 1929, the now well-established Morris Hertzstein Lectures with a revealing discourse on "Influence of Sympathetic Nervous System on the Activity of Skeletal Muscles, of Sensory Receptors, and of the Central Nervous System."

Professor Orbeli has gained an international reputation through his discoveries. A pupil of Pavlov, Barcroft, Langley, he underwent unusual disciplinary training in experimental physiology. He received early training in the Pavlov laboratories at a time when Professor Pavlov's experimental work on digestion was reaching its final stages. During this same period Pavlov prepared his address for the International Congress of Physiologists, held in Madrid, in 1903, disclosing to the world for the first time the phenomenon of conditioned reflexes.

Soon after the Madrid Congress, Orbeli worked closer with Pavlov in numerous experiments leading into new fields. Notable were experiments in the physiology of the central nervous system, a domain in which Russian scientists made the earliest discoveries. In 1908, Orbeli was sent to England to study with the famous English physiologist, Dr. Langley, who saw in him a man of unlimited capacity for research.

Orbeli was mainly interested in the vegetative nervous system, and it was in Langley's laboratories that he completed his classical investigation of the fibers of the sympathetic system in amphibia. Orbeli was also associated with Barcroft at the time when the investigation of hemoglobin, as an oxygen carrier, brought the latter fame.

Although upon his return to his native Russia

his association with Pavlov became even more collaborative, his main interest lay in the study of the vegetative nervous system. When investigation first began in this line, it was believed that the sympathetic nervous system supplied the internal organs, and did not have any relation to voluntary muscles. Orbeli proved this theory was false.

To verify this, the following experiment has been demonstrated: When a motor nerve in a muscle is stimulated to a point of complete fatigue of the muscle, the latter will reëstablish its function and capacity for work for a considerable length of time by further stimulation of the sympathetic nerve.

Orbeli's results are of great value from the clinical point of view, as they explain the phenomena of a series of morbid conditions, thereby opening new avenues for proper therapeutic intervention.

Another important field in which Orbeli concentrated his attention was that of the physiology of the sense organs—sleep, experimental neuroses. Piecing together the accumulated evidence that science already offered, and new facts discovered in work with his pupils, Orbeli constructed the principles of interrelation of the organs, their harmonious coöperation and their mutual effect upon each other.

In recent years Orbeli focused his attention on studies of the function of the cerebellum, the higher center of the sympathetic system and the mechanism of regulating the higher nervous function and its evolution. He has always incorporated the principles of Darwinism in his work, trying to grasp the various physiological functions in an evolutionary manner, while also striving to bring them to a methodical use in working out new problems and in analyzing facts already established by him and his pupils.

Orbeli ranks as one of the naturalists who considers the higher organisms from the point of view of their historical relation with the rest of living organisms. It is to be noted that he does this by taking into account physical and chemical laws which present one of the principles of biological processes. Very critical of his own work, as well as that of others, Orbeli has assembled the results of his investigation in a great Russian scientific institution which today provides a most attractive center for research for all scientific workers of Russia, as well as for the entire world.

This institution, as well as the many other great centers in Russia, occupies an important place in world science. The present war has naturally disrupted medical research, inasmuch as scientists are now primarily engaged in solving the immediate pressing problems of the battle front.

The old adage, "In time of Peace, prepare for War," was never put to better use literally, than with the Orbeli Institute. The medical profession in the U.S.S.R. did not idle away the years of peace before the world storm, but kept striving for the betterment of the race through the medium of research work.

All discoveries made there which proved to be of any benefit are now applied in actual practice. Safeguarding and maintaining the health of Russia's fighting forces through preventative measures and efficacious treatment of the disabled—these are the immediate and all absorbing problems of the Orbeli Institute, as well as of all medical centers. The scientist, the research worker and the government strive today to find new safeguards for their fighting men against infection; they are working out new methods of treatment for the rapid healing of wounds, prevention and treatment of frost-bite, and furthering research in the treatment of nerve and brain impairment. All this, while the struggle for a free world goes on!

Apropos of the spirit which dominates the Orbeli Institute is the classic phrase of the Russian scientist, Alexander Frumkin:

"I consider that in wartime theory must be subordinated to the interest of national defense—all the more since the fate of science in general is at stake."

450 Sutter.

Neuropsychiatric Hospital Dedicated in San Francisco*

Ceremonies for the official opening of the Langley Porter Clinic were held on February 13, 1943. The program was as follows:

The Langley Porter Clinic is a neuropsychiatric hospital with 100 beds and an out-patient department. It was built on land which was a part of the University of California Medical School campus and which was donated by the University of California to the State Department of Institutions. The hospital consists of four psychiatric wards for adults, one psychiatric ward for children, and one neurosurgical ward. It is equipped with operating room, x-ray, and all the usual laboratory facilities of a hospital, including an elaborate setup for electroencephalography. The University of California has exclusive use of the hospital for teaching and research purposes, and exercises clinical supervision over the patients. The teaching of psychiatry by the University of California Medical School will be carried out mainly at the Langley Porter Clinic.

The Out-patient Department is prepared to receive patients and one ward for adult psychiatric male patients has been opened. As soon as sufficient nursing personnel can be obtained, additional wards will be opened. All admissions are voluntary. The tentative rates for house care are $6.00 per day and $2.00 for Out-patient Department visits. Patients who cannot afford to pay this amount will pay only as much as they can afford. If a patient cannot afford to pay anything, there will be no charge for the service. The number of patients that can be seen in the Out-patient Department is restricted and patients are seen only on an appointment basis. It is requested that any physician wishing to refer a patient should first contact the Social Service Department of the Langley Porter Clinic, who will discuss whether or not the patient is suitable for study and treatment, and who will make an appointment for the patient's examination if patient is considered suitable. The same rule applies for admission of house cases. At present the number of patients that can be admitted to the house is extremely limited and only males can be received.

* See also, pages 216 and 245.